DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027367
Date Inspected: 23-Mar-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name: Salvador Merino

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Components

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Kenneth Riley was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

Plate Stiffeners

This QAI observed that welder Rich Garcia was using the Shielded Metal Arc Welding (SMAW) process, with electrode E9018 for the Partial Joint Penetration weld in the overhead (4G) position. The Welding Procedure Specification (WPS) used for this location was ABF-WPS-D15-1162-4 with welding amps measured at 122 for the 3.2mm electrode and 150 amps for the 4.0mm electrode. The pre-heat for this location was measured at 100 degrees C (200 degrees F) using thermo-couplers which were verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The location of the welding was the plate stiffeners at 13E/14E @ LS 5. The material is Gr 485 plate stiffeners (ID X3847D-H & J and X4879D-H & J) the dimensions of the plate stiffeners are 18mm x 125 & 130mm x 1500mm Gr 485W. The QC inspector for this location was Salvador Merino and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

This QAI observed that welder Jeremy Dolman was using the Shielded Metal Arc Welding (SMAW) process, with electrode E9018 for the Partial Joint Penetration weld in the overhead (4G) position, with a 3.2mm electrode. The Welding Procedure Specification (WPS) used for this location was ABF-WPS-D15-1162-4 with welding amps

measured at 123. The pre-heat for this location was measured at 100 degrees C (200 degrees F) using thermo-couplers which were verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The location of the welding was the plate stiffeners at 12E/13E@LS4. The material is Gr 485 plate stiffeners (ID X3847D-H & J and X4879D-H & J) the dimensions of the plate stiffeners are 18mm x 125 & 130mm x 1500mm Gr 485W. The QC inspector for this location was Salvador Merino and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

This QAI along with QC inspectors Salvador Merino and Steve McConnell was at plate stiffener locations for 12W/13W@LS4-6. The QC inspectors performed their inspection of the weldment's and the 300mm radius at each end of the plates and found them to be acceptable as relayed to this QA inspector.Then QC inspector Steve McConnell performed Magnetic Particle (MT) inspection at these locations and found them to be acceptable as relayed to this QAI. After the QC's inspection this QAI performed a random verification using MT and visual inspection of the areas and found that at the time of the verification the welds and the ground radius appeared to be within compliance of the contract documents.See TL-6028 dated for this date for more information

J.W. Spencer
This QAI observed that welder Damien Llanos with J.W. Spencer Mechanical was using the Shielded Metal Arc Welding (SMAW) process, with E6010 1/8" electrode for the root pass and E7018 3/32" electrode for the remaining weld passes. The Welding Procedure Specification (WPS) used for this location was 1-12-1with a measured welding parameter of 93 amps. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The location of the welding was on the west bound lane for the 65mm domestic water line and 100mm compressed air line. The areas there were being welded were the nipple attachments at the following locations.
1/CA2/94/NW (50mm nipple to 100mm compressed air line)
1/CA2/94/NW (50mm nipple to 100mm compressed air line)
1/DW1/94/NW (25mm nipple to 50mm domestic water line)
The QC inspector for this location was Steve Jensen and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.

WELDING INSPECTION REPORT

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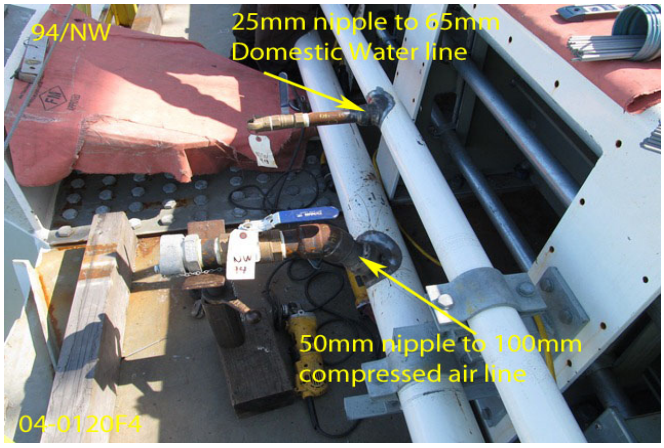

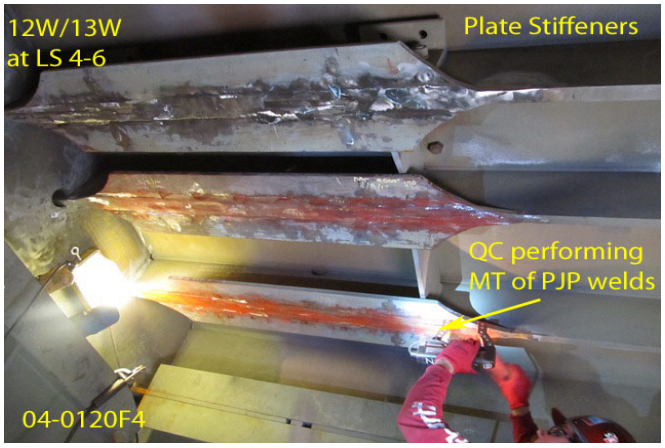

Summary of Conversations:

Basic conservation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer